

Form PTO-1449 (Modified)

**LIST OF PATENTS AND PUBLICATIONS  
FOR APPLICANT'S INFORMATION  
DISCLOSURE STATEMENT**  
(Use several sheets if necessary)



Atty. Docket No. 50422-5

Serial No. 10/761,338

Applicant Steve Hill

Filing Date January 22, 2004

Group

~~2883~~ 2883**REFERENCE DESIGNATION U.S. PATENT DOCUMENTS**

EXAM. INIT.		DOCUMENT NUMBER							DATE	NAME	CLASS	SUB CLASS	FIL. DATE IF APPROPRIATE
DLD	AA	5	4	3	4	8	7	8	Jul 18, 1995	Lawandy	372	43	
DLD	AB	6	2	9	4	4	0	1	Sept 25, 2001	Jacobson et al.	438	99	
DLD	AC	0	0	1	7	6	5	7	Feb 14, 202	Coffa et al.	257	200	
DLD	AD	0	0	7	0	1	2	1	Jun 13, 2002	Nayfeh et al.	205	549	
DLD	AE	0	0	7	4	5	6	5	Jun 20, 2002	Flagan et al.	257	200	
DLD	AF	0	1	6	3	0	0	3	Nov 7, 2002	Dal Negro et al.	257	79	

**FOREIGN PATENT DOCUMENTS**

		DOCUMENT NUMBER							DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION	
													YES	NO
DLD	AG	2	0	6	1	8	1	5	28.01.2002	WO	H01L	21/20	<input checked="" type="checkbox"/>	

**OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)**

DLD	AH		A. Nakajima, et al.; MICROSTRUCTURE AND OPTICAL ABSORPTION PROPERTIES OF Si NANOCRYSTALS FABRICATED WITH LOW-PRESSURE CHEMICAL-VAPOR DEPOSITION; J. Appl. Phys., Vol. 80, No. 7, 1 October 1996, pp. 4006-4011.
	AI		Jeong Sook Ha, et al.; Er <sup>3+</sup> PHOTOLUMINESCENCE FROM Er-DOPED AMORPHOUS SiO <sub>2</sub> FILMS PREPARED BY PULSED LASER DEPOSITION AT ROOM TEMPERATURE: THE EFFECTS OF OXYGEN CONCENTRATION; Applied Physics Letters, Vol. 82, No. 20, 19 May 2003, pp. 3436-3438.
	AJ		Jung H. Shin, et al.; EFFECT OF HYDROGENATION ON ROOM-TEMPERATURE 1.54 μm Er <sup>3+</sup> PHOTOLUMINESCENT PROPERTIES OF ERBIUM-DOPED SILICON-RICH SILICON OXIDE; Applied Physics Letters, Vol. 73, No. 25, 21 December 1998, pp. 3647-3649.
	AK		T.G. Kim, et al.; CONTROLLING THE FORMATION OF LUMINESCENT Si NANOCRYSTALS IN PLASMA-ENHANCED CHEMICAL VAPOR DEPOSITED SILICON-RICH SILICON OXIDE THROUGH ION IRRADIATION; Journal of Applied Physics, Vol. 91, No. 5, 1 March 2002, pp. 3236-3242.
	AL		M. Li, et al.; ELLIPSOMETRY INVESTIGATION OF NUCLEATION AND GROWTH OF ELECTRON CYCLOTRON RESONANCE PLASMA DEPOSITED SILICON FILMS; J. Vac. Sci. Technol. A 11(4) Jul/Aug 1993, pp. 1686-1691.
	AM		H.S. Bae, et al.; ELECTROLUMINESCENCE MECHANISM IN SiO <sub>2</sub> LAYERS CONTAINING RADIATIVE CENTERS; Journal of Applied Physics, Vol. 91, No. 7, 1 April 2002, pp. 4078-4081.
	AN		Minoru Fujii, et al.; 1.54 μm PHOTOLUMINESCENCE OF Er <sup>3+</sup> DOPED INTO SiO <sub>2</sub> FILMS CONTAINING Si NANOCRYSTALS: EVIDENCE FOR ENERGY TRANSFER FROM Si NANOCRYSTALS TO Er <sup>3+</sup> ; Appl. Phys. Lett. 71 (9), September 1997, pp. 1198-1200.
✓	AO		Giorgia Franzò, et al.; ENHANCED RARE EARTH LUMINESCENCE IN SILICON NANOCRYSTALS; Materials Science and Engineering B69-70, 2000, pp. 335-339.
EXAMINER <i>DL 2 J</i>			DATE CONSIDERED 11/14/2005

EXAMINER:

Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)	Applicant Steve Hill	
	Filing Date January 22, 2004	Group <del>2877</del> 2883

OTHER ART (including Author, Title, Date, Pertinent Pages, Etc.)

AP	Georgia Franzò, et al.; Er <sup>3+</sup> IONS: Si NANOCRYSTALS INTERACTIONS AND THEIR EFFECTS ON THE LUMINESCENCE PROPERTIES; Applied Physics Letters, Vol. 76, No. 16, 17 April 2000, pp. 2167-2169.
AQ	Se-Young Seo, and Jung H. Shin; EXCITON-ERBIUM COUPLING AND THE EXCITATION DYNAMICS OF Er <sup>3+</sup> IN ERBIUM-DOPED SILICON-RICH SILICON OXIDE; Applied Physics Letters, Vol. 78, No. 18, 30 April 2001, pp. 2709-2711.
AR	Jung H. Shin, et al.; PHOTOLUMINESCENCE EXCITATION SPECTROSCOPY OF ERBIUM-DOPED SILICON-RICH SILICON OXIDE; Applied Physics Letters, Vol. 76, No. 15, 10 April 2000, pp. 1999-2001.
AS	F. Iacona, et al.; ELECTROLUMINESCENCE AT 1.54 µm IN Er-DOPED Si NANOCUSTER-BASED DEVICES; Applied Physics Letters, Vol. 81, No. 17, 21 October 2002, pp. 3242-3244.
AT	Minoru Fujii, et al.; PHOTOLUMINESCENCE FROM SiO <sub>2</sub> FILMS CONTAINING Si NANOCRYSTALS AND Er: EFFECTS OF NANOCRYSTALLINE SIZE ON THE PHOTOLUMINESCENCE EFFICIENCY OF Er <sup>3+</sup> ; Journal of Applied Physics, Vol. 84, No. 8, 15 October 1998, pp. 4525-4531.
AU	A.J. Kenyon, et al.; LUMINESCENCE FROM ERBIUM-DOPED SILICON NANOCRYSTALS IN SILICA: EXCITATION MECHANISMS; Journal of Applied Physics, Vol. 91, No. 1, 1 January 2002, pp. 367-374.
AV	J. De la Torre, et al.; OPTICAL AND ELECTRICAL TRANSPORT MECHANISMS IN Si-NANOCRYSTAL-BASED LEDs; Elsevier Science B.V., Physica E, 2002, pp. 1-3.
AW	Jung H. Shin, et al.; COMPOSITION DEPENDENCE OF ROOM TEMPERATURE 1.54 µm Er <sup>3+</sup> LUMINESCENCE FROM ERBIUM-DOPED SILICON: OXYGEN THIN FILMS DEPOSITED BY ELECTRON CYCLOTRON RESONANCE PLASMA ENHANCED CHEMICAL VAPOR DEPOSITION; Applied Physics Letters, Vol. 72, No. 9, 2 March 1998, pp. 1092-1094.
AX	P.G. Kik, et al.; STRONG EXCITON-ERBIUM COUPLING IN Si NANOCRYSTAL-DOPED SiO <sub>2</sub> ; Applied Physics Letters, Vol. 76, No. 17, 24 April 2000, pp. 2325-2327.
AY	G. Franzò, et al.; ELECTROLUMINESCENCE OF SILICON NANOCRYSTALS IN MOS STRUCTURES; Appl. Phys. A, Materials Science & Processing, 74, (2002), pp. 1-5.
AZ	A. Irrera, et al.; EXCITATION AND DE-EXCITATION PROPERTIES OF SILICON QUANTUM DOTS UNDER ELECTRICAL PUMPING; Applied Physics Letters, Vol. 81, No. 10, 2 September 2002, pp. 1866-1868.
aa	P.S. Andry, et al.; GROWTH OF Er-DOPED SILICON USING METALORGANICS BY PLASMA-ENHANCED CHEMICAL VAPOR DEPOSITION; J. Appl. Phys. 80 (1), 1 July 1996, pp. 551-558.
ab	Kei Watanabe, et al.; RESONANT EXCITATION OF Er <sup>3+</sup> BY THE ENERGY TRANSFER FROM Si NANOCRYSTALS; Journal of Applied Physics, Vol. 90, No. 9, 1 November 2001, pp. 4761-4767.
ac	J. De la Torre, et al.; OPTICAL PROPERTIES OF SILICON NANOCRYSTAL LEDs; Elsevier Science B.V., Physica E, 2002, pp. 326-330.
EXAMINER	DATE CONSIDERED

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### REFERENCE DESIGNATION U.S. PATENT DOCUMENTS

EXAM. INIT.		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILED APPROPRIATE
DLD	AA	5,667,905	1997.09.06	Campisano, Salvatore Ugo et al.	428	690	
DLD	AB	6,255,669	2001.07.03	Birkhahn, Ronald H. et al.	257	89	
DLD	AC	US 2003/034486	2003.02.20	Korgel, Brian A.	257	13	
DLD	AD	US 2002/048289	2002.04.25	Atanackovic, Petar B. et al.	372	20	
DLD	AE	US 2004/183087	2004.09.23	Gardner, Donald S.	257	102	
DLD	AF	5,422,907	1995.06.06	Bhargava, Rameshwar N.	372	68	
DLD	AG	5,637,258	1997.06.10	Goldburn, Efin T. et al.	252	301.4R	

### FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION	
							YES	NO
	AH	101-84-193	2002.08.01	DE				✓
DLD	AI	2001 203382	2001.07.27	JP			Abstract	
DLD	AJ	1 134 799	2001.09.19	EP			✓	
DLD	AK	WO 02/061815	2002.08.08	DE			✓	
DLD	AL	0 650 200	1995.04.26	EP			✓	

### OTHER ART (including Author, Title, Date, Pertinent Pages, Etc.)

DLD	AM	Orlov, L.K. et al.	COMPARITIVE ANALYSIS OF LIGHT EMITTING PROPERTIES OF Si:Er AND Ge/Si <sub>1-x</sub> Ge <sub>x</sub> EPITAXIAL STRUCTURES OBTAINED BY MBE METHOD. <i>Gettering and Defect Engineering in Semiconductor Technology. Solid State Phenomena (FORMERLY Part B of "Diffusion and Defect Data [0377-6883])</i> . Vol 69 until 70, 1999. Pages 377-382. ISSN:1012-0394.
DLD	AN	Shin, J.H. et al.	CONTROLLING THE QUANTUM EFFECTS AND ERBIUM-CARRIER INTERACTION USING Si/SiO <sub>2</sub> SUPERLATTICES. <i>Proceedings of the SPIE</i> . Vol. 4282, January 1, 2001. Bellingham, VA United States of America. Pages 142-152.
DLD	AO	Yun, F. et al.	ROOM TEMPERATURE SINGLE-ELECTRON NARROW-CHANNEL MEMORY WITH SILICON NANODOTS EMBEDDED IN SiO <sub>2</sub> MATRIX. <i>Japanese Journal of Applied Physics</i> . Publication Office Japanese Journal of Applied Physics. Vol. 39, no. 8A Part II. August 1, 2000. Tokyo, Japan. Pages L792-L795.
EXAMINER <i>OM 24</i>			DATE CONSIDERED 11/14/2005

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